

REMARKS

Claim 1 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicants Admitted Prior Art (AAPA) in view of Terashita et al. Applicants respectfully traverse this rejection, because it would not have been obvious to one of ordinary skill in the art to combine the cited references.

The present invention is directed to a method for manufacturing a liquid crystal display panel, specifically, the two substrates and associated components for holding liquid crystal. A plurality of pillar spacers are formed on one of the substrates for distributing liquid crystal between the two substrates. The surface of the substrate where the pillar spacers are formed are optically cleaned to avoid reduction in the thickness of the pillar spacers after their formation. In this manner, an unevenness in the LCD is avoided after the two substrates are put together.

The Terashita et al. reference relates specifically to a method for forming the thin film transistor (TFT) 4 of a liquid crystal display element. The reference teaches using an excimer lamp to clean the surfaces of the gate insulating film 13 and the transparent conductive film 17 and 17' of the TFT to improve adhesion between the gate insulating film and the transparent conductive films (see col. 9, lines 42-45, and col. 11, lines 13-20).

The AAPA relates particularly to the manufacturing of the liquid crystal holding portion of the liquid crystal display panel, i.e., the two substrates for holding the liquid crystals, the pillar spacers, and the alignment film. The Terashita et al. reference, in contrast, teaches a method for forming a thin film transistor (TFT), which is unrelated to the

liquid crystal holding portion of the liquid crystal display panel. Therefore, one of ordinary skill in the art looking to solve the problem associated with the liquid crystal holding portion of an LCD panel, would not have turned to the Terashita et al. reference to solve this problem.

Moreover, Terashita et al. specifically teaches that the excimer lamp is used for purposes of cleaning the gate insulating film and the transparent conductive films of a thin film transistor. It does not disclose or suggest that the excimer lamp could also be used in avoiding reduction in the thickness of the pillar spacers provided between the liquid crystal holding substrates, as described in the present invention. In other words, the Terashita et al. reference merely teaches the fabrication method of a TFT, and is not even concerned with the fabrication of the portion of a liquid crystal display that controls the distribution of liquid crystal. For this reason also, one of ordinary skill in the art would not have looked to the cited reference to avoid reduction in thickness of the pillar spacers.

For all of the above reasons, Applicants request reconsideration and allowance of the claimed invention. The Examiner should contact Applicants' undersigned attorney if a telephone conference would expedite prosecution.

Respectfully submitted,

GREER, BURNS & CRAIN, LTD.

By



B. Joe Kim

Registration No. 41,895

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Suite 2500
300 South Wacker Drive
Chicago, Illinois 60606
(312) 360-0080
Customer No. 24978

In the Drawings:

The attached sheets of drawings include changes to Figs. 3A-3E and 4.

Attachments: (2) Replacement Sheets
(2) Annotated Sheets



METHOD OF MANUFACTURING LIQUID...
Minoru Otani et al.
Greer, Burns & Crain, Ltd.
Ref. No. 1324.70181
Replacement Sheet 1 of 2

03/16/06
S.N. 10/811,773
(B. Joe Kim)
(312) 360-0080

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FIG.3A
(PRIOR ART)

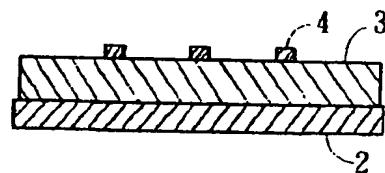
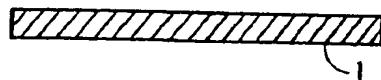


FIG.3B
(PRIOR ART)

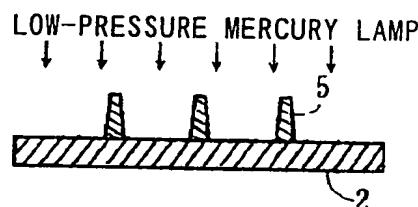


FIG.3C
(PRIOR ART)

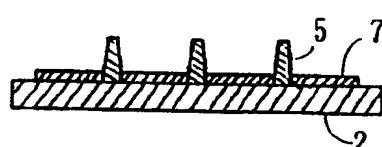
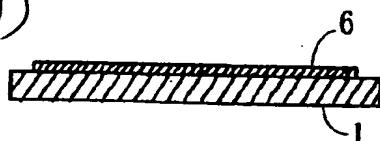


FIG.3D
(PRIOR ART)

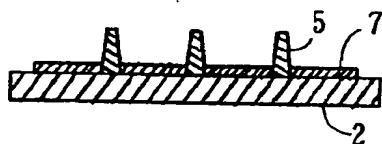
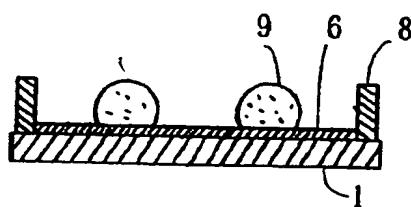
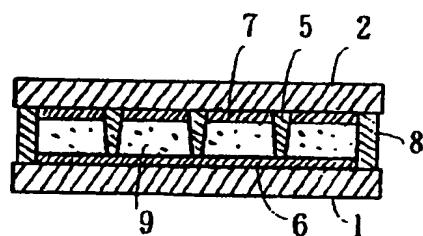


FIG.3E
(PRIOR ART)





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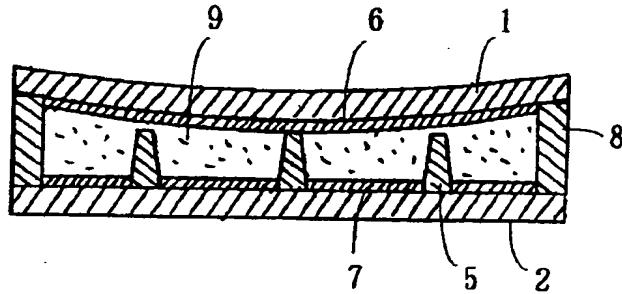


FIG.4
(PRIOR ART)